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# Analysis of Tax Compliance and Impacts on Regional Budgeting and Public Welfare

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# Analysis of Tax Compliance and Impacts on Regional Budgeting and Public Welfare

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**Abstract.** The research aims to analyze the impacts of tax compliance on regional budgeting and public welfare in East Java Province. Using the Partial Least Square (PLS) method, it considers the following variables: tax compliance, regional finance, general grant, special grant, regional expenditures, and Human Development Index (HDI). The results indicate that tax compliance has significant impacts on regional finance. Tax has significant positive impacts on regional expenditures/spending. Conversely, regional spending affects public social welfare in East Java Province. The research concludes that tax compliance gives significant positive impacts on public welfare in East Java Province during the 2004-2009 period. The prevalent policy implies that regional government has to secure regional financial balance to improve public welfare in East Java Province. The regional government is to promote public awareness that tax compliance is crucial to improve tax revenues and public welfare.

**Keywords**: tax compliance, regional finance, regional expenditures, partial least square, public welfare

***Abstrak.*** *Penelitian ini bertujuan untuk menganalisa pengaruh kepatuhan pajak dan dampaknya pada penganggaran keuangan daerah dan kesejahteraan hidup masyarakat di Provinsi Jawa Timur. Metode yang digunakan dalam penelitian ini adalah "Partial Least Square" (PLS). Variabel yang digunakan ; kepatuhan pajak, keuangan daerah, hibah umum, hibah khusus, pangsa pajak, pengeluaran daerah, dan Indeks Pembangunan Manusia (HDI). Hasil penelitian ini menunjukkan bahwa kepatuhan pajak berpengaruh pada keuangan daerah. Pajak memiliki pengaruh yang signifikan dan positif untuk pengeluaran/belanja daerah. Sebaliknya, belanja daerah berpengaruh bagi kehidupan kesejahteraan sosial di Provinsi Jawa Timur. Kesimpulannya yaitu kepatuhan pajak memberikan pengaruh yang signifikan dan positif pada kesejahteraan masyarakat di Provinsi Jawa Timur Tahun 2004-2009. Implikasi kebijakan mengatakan bahwa pemerintah daerah harus mengalokasikan perimbangan keuangan daerah untuk meningkatkan kesejahteraan masyarakat di provinsi Jawa Timur. Pemerintah daerah harus mempromosikan memberitahukan masyarakat bahwa kepatuhan pajak diperlukan untuk meningkatkan penerimaan pajak dan kesejahteraan masyarakat.*

***Kata kunci:*** *kepatuhan pajak, keuangan daerah, belanja daerah, partial least square, kesejahteraan masyarakat*

## INTRODUCTION

The implementation of the Law on regional autonomy and fiscal decentralization has brought changes in budgeting structure. The previous system of centralized budgeting was considered both inefficient and unfair, requiring it to be changed into a decentralized one so that budgeting authority would not rest solely on the central government. Fiscal Equalization Fund (*Dana Perimbangan*) is a component resulting from the implementation of the Law on Regional Autonomy, which regulates the financial relations between the central and regional government. Taxing power sharing is a common agreement among political actors in a democracy.

The demand to constantly increase tax revenues to sustain development fund has urged the government to take different tax efforts by, for example, improving public tax compliance, which, in turn would increase government revenues. A number of measures can be taken in this respect, for example, increasing tariffs and tax bases, improving the system and public tax compliance. Of the four factors that, according to Trivedi, et al. (2003), high tax compliance is of highest importance for the government if public welfare is to be achieved. Shahroodi (2010) argues that tax system will be efficient when tax policy is designed in such a way that tax level is rational, tax collecting mechanism is efficient, and corruption in tax management is eradicated.

The tax collecting system currently applicable in Indonesia, known as the self-assessment tax system, requires that all tax subjects calculate, estimate, report, and pay their texts. If within a period of five years, unless proven otherwise by relevant data or other kinds of information, a person's tax return is acceptable. Validity, completeness, and clarity of tax return must be validated. These indicators determine a tax subject's honesty in paying tax. It is within this respect that the trust given by the government to tax subjects must be counterbalanced by their compliance. In addition, tax authorities are also demanded to do their work fairly and honestly so mutual trust can be established between the government and tax payers. Trust is a crucial factor that can encourage people to pay tax. The fairer and more honest the government, the stronger the trust, the public will believe the government's motivation to collect tax and therefore would not hesitate to pay tax voluntarily (Murphy, 2003).

Oates in Cullis and Jones (1992) believes that welfare gains will be felt by the public as a positive result of the decentralized fiscal and regional autonomy policy. Welfare gains can be attained through decentralization. Under a decentralized policy, the regional government can, with its authority, manage its budget independently, as well as allocate and distribute it efficiently and effectively so that it can estimate the output that its people need. Fiscal equalization fund determines the regional government's ability to provide public services for maximum improvement of public welfare.

Welfare is a goal of a nation's economic development. History has shown that the trickle down development planning strategy, common in neo-classic models of development, can no longer be adopted in current development policies. As Seers argues in Arief (1993), the economic growth of a nation is determined not only by its GNP growth per capita, but also by three other criteria, namely decrease in absolute poverty, reduced unequal income distribution, and reduced unemployment.

Scitovsky in Swasono (2005) asserts that competition has its weaknesses. While economists believe that the role of economic policy is to maintain employment and price stability, the government's responsibility is to address the weaknesses of competition and secure welfare. The state must deliver services that the public can make use of collectively. However, Swasono adds that Schitovsky tends to side with the competition order and prefer limitation of government's control.

Tax is an important instrument in the effort to gain independence in development funding. In state budgeting structure, as public demand for better welfare increases, tax revenues are also expected to increase. However, maintaining tax revenue increase sustainability is never easy, particularly when the public's voluntary tax compliance is concerned. A gap exists between public tax compliance on the one hand, and the government's desire to increase tax revenue on the other hand. While most people consider paying tax a burden, the government regards tax as investment in development.

It is this gap that the research attempts to study. A thorough investigation on this matter is important because the amounts of foreign debts that keep on increasing and the Law on Regional Autonomy and Fiscal Decentralization requires that foreign debts be decreased and compensated with domestic revenues. As a fiscal instrument, tax is a source of budget and therefore can be used as development fund. The bigger the national tax revenues, the less dependence on foreign debts. If this condition is achieved, the state will no longer be burdened with debt installments and interest rates.

In their study, Davodi and Zou (1998) claim that imposing tax brings positive impacts on the economic growth in both developed and developing countries. Individual consumption may reduce, but through a multiplier effect, tax imposition, coupled with state expenditures, can increase national revenues, which, in time, will also increase the national per capita income (Dornbusch and Fischer, 1994).

The amount of tax revenues depends on the public's awareness to settle their tax payment. High level of public awareness is needed to support national revenues. The higher the awareness, the more people will fulfill their tax obligation by registering themselves as tax subjects, reporting their taxes, and pay them. According to Allingham and Sandmo (1972), tax compliance is influenced by level of regular income, tax rate, probability for audit, and penalty rate. However, later Cowell and Gordon (1988) added that there is another important factor, namely government expenditure (g) that also affects tax compliance. As Cowell and Gordon argue, a tax subject's declared income is subject not only to level of income and tax rate, but also to his/her response to tax regulations. Proper income declaration correlates positively with level of concern about income audit. The higher public tax compliance, the higher tax revenues. Based on a study in the US, Xie, et all (1999) concludes that the level of tax compliance correlates positively with state and local spending shares.

Tax revenue is a crucial component in implementing development independently. Its optimization is a way to maximize domestically-generated development funding. However, efforts to increase tax revenues are always met with a lot of obstacles and challenges. Amounts of tax revenues are also determined by tax tariffs. For the government, higher tax tariffs are an easy way to secure national revenues. However, for the people (tax subjects), increasing tax tariffs would reduce their household budget, making it difficult for them to make both ends meet.

Laffer (2004) explains that a relation exists between tax tariff and revenue. The relation occurs because tax tariff change has two effects: arithmetic and economic effects. An arithmetic effect occurs because when tax tariff is low, tax revenue will be low too. Conversely, if tax tariff is high, tax revenue will be also high. An economic effect in tax imposition occurs due to changes in economic activities (job opportunity, output) as a result of change in tax tariff. If tax tariff is increased, its multiplier effect on economic activities will be negative, and vice versa.

The basic idea of decentralization in regional development has been circulated for long as a new paradigm in the national development of a country. Alan in Kuncoro (2004) argues that decentralization can be caused by the following factors; (1) centralized planning has failed; (2) strategies of equal development distribution gain more popularity; and (4) development is a complex undertaking with a lot of uncertainty, which is not very easy for a centralized government to cope with.

Fiscal decentralization policy is affected by these factors, such as; (1) regional government's ability to adapt to its constituents' choices; (2) adjustment of public services in response to changing public conditions; (3) different budget capacities among regions; and (4) the ability of each region to make public policy innovations (Oates, 2006).

According to John Maynard Keynes, a nation's economy needs injection of funding in order to improve liquidity of its economic activities. Such injection can come from the government (in the form of government expenditures), private or corporate parties (in the form of private investments), and individuals (in the form of tax paid from their disposable income). Within this macroeconomic context, the tax an individual pays can trigger a multiplier effect on the aggregate economic activities. However, it should be noted that Keynes' argument above fails to see the comparison between the society's tax compliance and their disposable income. Within this aggregate macroeconomic context, Allingham and Sandmo's idea on tax compliance (1972) can be related to Keynes' concept that the multiplier effect of tax on economy should also be related to the society's attitude towards their tax compliance or declared income. The better the society's attitude towards tax, the higher tax revenues, the wider the multiplier effect, and the better public welfare. However, it should be noted further that tax policy in developing countries is highly affected by its national economic structure (Bird and Zolt, 2003). As an implication, tax revenues in developing countries are mainly supported by economic activities that are based on the traditional sector. Other sectors of economic activities (informal sectors) are still beyond the formal tax scope structure.

Some conclusions have been drawn from a number of previous empirical studies on the relation between tax compliance, state budget expenditures, and public welfare. Embaye' study (2007) analyzes factors that determine the amount of expenditures in South Africa from 1960 to 2002. Using the Error Correction Model, the study concludes that national expenditures in South Africa are affected significantly by the amount of tax revenues, people's level of income, macroeconomic factors, and political dynamics. In addition, Embaye's study also finds the presence of tax-evading behavior in the form of underground economy in South Africa.

Murphy's study (2004) analyzes how the factor of trust affects tax compliance level. Conducted in Australia using the Structural Equation Model (SEM), the study concludes that the factor of trust plays a crucial role in encouraging tax compliance among tax subjects. It is important to maintain trust between the government and tax subjects. It is only when the government shows an honest attitude that the public will believe its motive in collecting tax. If this is achieved, tax subject will most likely not put off their decision to pay tax voluntarily.

A study by Loizides and Vamvoukas (2005) seeks to examine the correlation between national expenditures (ratio of government expenditures against GDP) and economic growth (GDP) in Greece, UK, and Ireland from 1948 to 1995. The study uses Granger Causality Test for both long and short-term estimation. The results of the study indicate that government expenditures contribute to the short and long-term economic growth in UK and Ireland. The study also reveals that economic growth can trigger increase in government expenditures in Greece and if a variable of inflation is included as an independent variable, such a correlation is found in UK.

East Java, as one of the biggest provinces in Indonesia has an average on-time tax reporting (SPT) percentage of 36.59% in 2006 and about 43% in 2009. As the figures indicate that if this good opportunity is maximized, the province can still have adequate equalization fund and expenditures to improve public welfare.

A more comprehensive picture of public welfare in East Java is reflected on the Human Development Index (HDI) of the province from 2001 to 2004. In 2001, the province's HDI was 63.89%, and in 2004 it increased to 65.81% and reached 70.14% in 2009. The figures indicate that public welfare increases over time. Aspects of health, education and per capita income are considered in the calculation of the above indices. In the aggregate, increase in public welfare is evident, yet not maximized, as can be seen from the percentage of poor citizens in East Java, which is still considerably high, amounting to 19.10% in 2004.

From the illustration above, it can be concluded that tax revenue contributes significantly to the regional equalization fund. The more people are tax compliant, the bigger the tax revenues. According to the data available, the level of tax compliance in East Java, particularly on-time tax reporting, in 2006 was 36.59%. As the figure indicates that if this good opportunity is maximized, the province can still have adequate equalization fund and expenditures to improve public welfare.

Based on the above description, this research aims to; (1) Analyze the impacts of tax compliance on fiscal equalization fund in East Java Province; (2) Analyze the impacts of fiscal equalization fund on regional government expenditures in East Java Province; (3) Analyze the impacts of fiscal equalization fund on public welfare in East Java Province; (4) Analyze the impacts of regional government expenditures on public welfare in East Java Province; and (5) Analyze the impacts of tax compliance on public welfare in the municipalities and regencies of East Java Province.

## RESEARCH METHODS

The research is explanatory in nature; that is, it attempts to analyze the correlation between the variables examined. In this research, the object is studied thoroughly, and the phenomena surrounding it, as well as the correlation among the variables concerned, are observed.

The data for this study are secondary in nature. They are taken chronologically in a time series from 2004 to 2009. The sources of the data are archived documentation of the following organizations concerned, including, among others the Central Bureau of Statistics, Municipal/Regency Governments, Regional Office of the Directorate General of Tax, and KPP (Tax Service Office). Samples are taken by means of a census method, that is, all units within the population are used as research samples. Thus, in this research, while the population refers to the 38 municipalities/regencies in the entire East Java Province, the samples are full samples, comprising all members of the population.

Based on their position in the structural model, the research variables are grouped into the following categories; (1) Exogenous variable–independent,Tax Compliance ($X_1$); (2) Endogenous variable–intervening; Regional Fiscal Equalization Fund (Y1) and Regional Government Expenditures ($Y_2$); and (3) Endogenous variable–dependent, Public Welfare ($Y_3$).

Operational Definition of Variables is tax compliance ($X_1$) is defined as tax subject's consent to fulfill his/her tax obligation under the prevailing tax regulation (Nobes, 1997). According to Law Number 6 Year 1983 on General Provisions of Taxation, as amended by Law Number 16 Year 2009 and Law Number 19 Year 2003 Collection of Taxes by Distress Warrant, and Sommerfeld, et all. (1994), tax compliance can be measured by the following indicators, such as; (1) On-time Tax Return (SPT) Reporting ($X_{11}$), proportion between the number of Tax Return forms reported on-time and the total number of Tax Return that should be reported before deadline (reporting deadline is 31 March each year); (2) Accuracy of Income Tax Installment (PPh) Payment ($X_{12}$), proportion of the number of tax subjects paying accurate amount of the year's tax (1/12 of previous year's tax due) against total tax subjects; and (3) Payment of income tax installment before due date ($X_{13}$), proportion of tax subjects paying tax installment before due date against total tax subjects. (1) Regional Fiscal Equalization Fund ($Y_1$) is defined as a system in a unitary state under which funding is shared in an equal, proportional, fair, and transparent manner between the Central and Regional Government by taking into consideration regional potentials, conditions, needs, responsibility, authority, shared authority and the prevalent implementation procedures of shared authority (Sidik, 2001).

Based on Law Number 32 Year 2004 on Regional Government and Law Number 33 Year 2004 on Fiscal Balance between the Central Government and Regional Governments, there are four indicators of the variable: Tax Revenue Sharing, Natural Resources Revenue Sharing, General Allocation Fund, and Special Allocation Fund. The research focuses only on three indicators. Natural Resources Revenue Sharing is not used in the study because it has insignificant contribution and therefore hardly has any effect on regional fiscal equalization fund. Thus, the research uses the following indicators; (1) Tax Revenue Sharing ($Y_{11}$); (2) General Allocation Fund ($Y_{12}$); (3) Special Allocation Fund ($Y_{13}$); and (4) Regional Government Expenditures ($Y_2$) is the amount of budget allocation a regional government spends to fund its development. Government expenditures are budget-limited; therefore, productive expenditures (for providing public services, education, health, transportation, communication, and housing) will actually boost up economic growth. On the contrary, non-productive expenditures (for social security, recreation, or other consumptive expenditures) will by no means increase economic growth (Kneller, et all, 1999).

The indicators for this variable are: (1) Routine Expenditures ($Y_{21}$): Amount of Routine Expenditures within a Regional Budget period; (2) Capital Expenditures ($Y_{22}$): Amount of Capital Expenditures within a Regional Budget Period; (3) Public Welfare ($Y_3$) is the level of human development index achieved. The indicators are (UNDP, 2005); and (4) Human Development Index ($Y_{31}$).

To analyze the structural correlation between the variables observed as intended in the problem identification

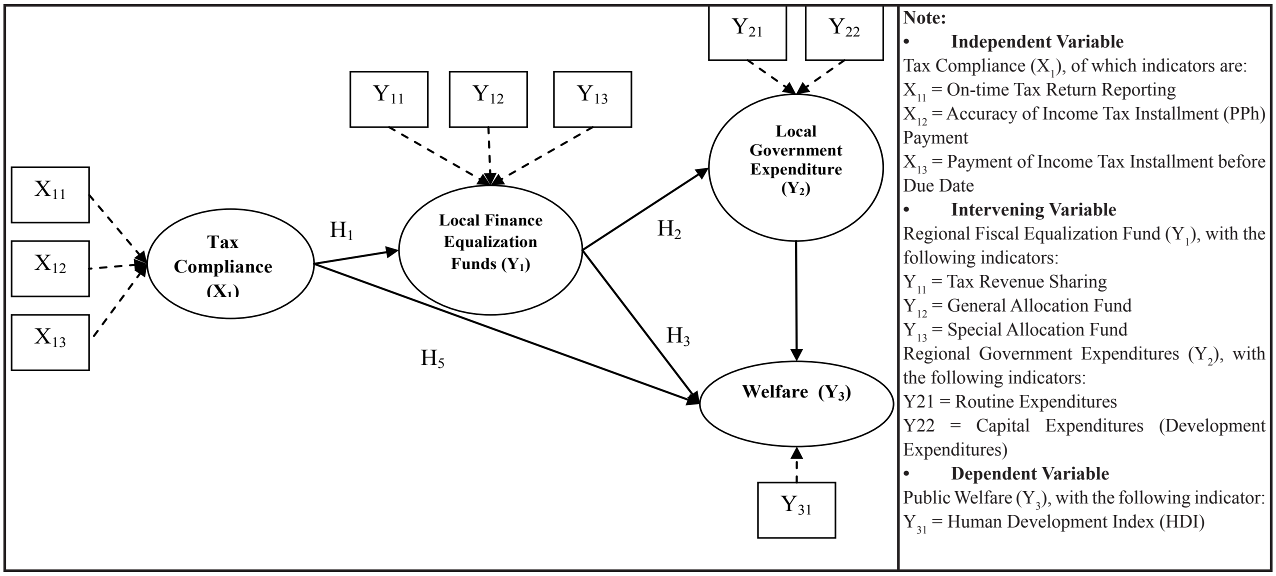


**Figure 1. Research Conseptual Framework**

and hypotheses, the PLS (Partial Least Square) method is used for the following reasons. First,the analysis model is stepwise and the structural equation model conforms to the recursive model characteristics. Second, the variables in the model are latent, having formative indicators.

Based on the above background, aims, literature review, a conceptual framework is established and used to address the problems, as illustrated in the Figure 1.

Based on the research background, problem identification, aims, and conceptual framework, the following hypotheses can be drawn; (1) Tax Compliance correlates positively and significantly with Regional Equalization Fund of West Java Province; (2) Regional Equalization Fund correlates positively and significantly with regional expenditures of East Java Province; (3) Regional Equalization Fund correlates positively and significantly with public welfare in East Java Province; (4) Regional Government Expenditures correlates positively and significantly with public welfare in East Java Province; and (5) Tax Compliance correlates positively and significantly with public welfare in East Java Province.

## RESULT AND ANALYSIS

An inner model (structural model) basically tests research hypotheses. Hypotheses are tested partially by means of T-statistics on every path of direct impact. The following table presents the results of the direct impact hypotheses tested.The results of path hypotheses test can also be seen in the Figure 2.

From the above test the following conclusions can be drawn; (1) The examination of the direct impact of Tax Compliance on Regional Fiscal Equalization Fund yields an inner weight coefficient of 0.247, with a T-statistics value of 4.572, and p-value of 0.000. Since the T-statistics value is > 1.96, and p-value is < 0.05, there is a significant direct impact of Tax Compliance on Regional Fiscal Equalization Fund. The inner weight coefficient has a positive value, which indicates that the correlation between the two variables is positive. In other words, the higher Tax Compliance, the higher Regional Fiscal Equalization Fund; (2) Examination of direct impact of Regional Fiscal Equalization Fund on Regional Financial Expenditures yields an inner weight coefficient value of 0.835, a T-statistics value of 18.364, and p-value of 0.000. Since the T-statistics value is > 1.96 and p-value is < 0.05, there is a significant direct impact of Regional Fiscal Equalization Fund and Regional Financial Expenditures. The inner weight coefficient has a positive value, which indicates that the correlation between the two variables is positive. In other words, the higher Regional Fiscal Equalization Fund, the higher Regional Financial Expenditures; (3) Examination of direct impact of Regional Fiscal Equalization Fund on Public Welfare yields an inner weight coefficient value of 0.044, a T-statistics value of 0.484, and p-value of 0.628. Since the T-statistics value is < 1.96 and p-value is > 0.05, no direct correlation is found between Regional Fiscal Equalization Fund and Public Welfare; (4) Examination of direct impact of Regional Financial Expenditures on Public Welfare yields an inner weight coefficient value of 0.248, a T-statistics value of 2.790 and p-value of 0.000. Since the T-statistics value is >1.96 and p-value is <0.05, the Structure of Regional Financial Expenditures has a direct and significant impact on Public Welfare. Since the inner weight coefficient has a positive value, there is a positive correlation between both variables.

**Table 1. Results of Hypotheses Testing in the Inner Model: Direct Impacts**

| Correlation | Lane Coefficients | T-stat | p-value |
|---|---|---|---|
| X1 to Y1 | 0.247 | 4.572 | 0.000 |
| Y1 to Y2 | 0.835 | 18.364 | 0.000 |
| X1 to Y3 | 0.278 | 4.051 | 0.000 |
| Y1 to Y3 | 0.044 | 0.484 | 0.628 |
| Y2 to Y3 | 0.248 | 2.790 | 0.005 |

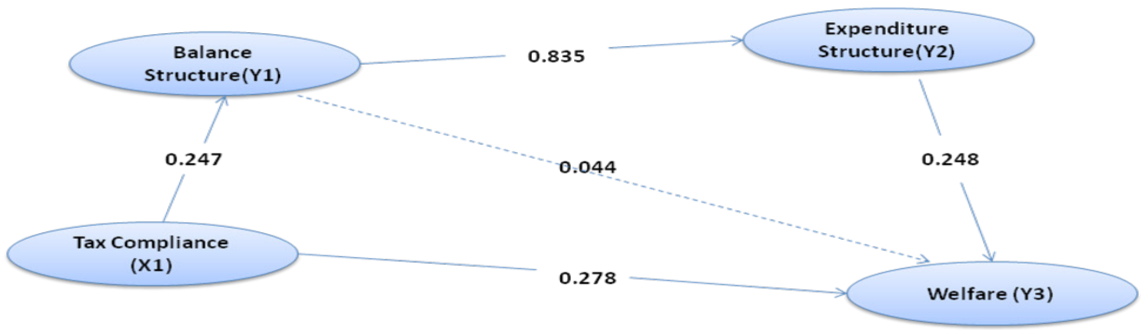


**Figure 2. Results of Hypotheses Testing in the Inner Model: Direct Impacts**

In other words, the higher the Structure of Regional Financial Expenditures, the better Public Welfare; and (5) Examination of direct impact of Tax Compliance on Public Welfare yields an inner weight coefficient value of 0.278, a T-statistics value of 4.051, and p-*value* of 0.000. Since the T-statistics value is >1.96 and p-*value* is <0.05, Tax Compliance has a direct significant impact on Public Welfare. Since the inner weight coefficient has a positive value, both variables correlate positively. In other words, the higher Tax Compliance, the better Public Welfare. Findings on indirect impacts are presented in Table 2.

The Table 2 shows the following results; (1) Examination of indirect impact of Tax Compliance on Regional Government Expenditures yields an indirect impact coefficient value of 0.206. Since the direct impacts (of Tax Compliance on Regional Fiscal Equalization Fund and of Regional Fiscal Equalization Fund on Regional Expenditures) are both significant, it can be concluded that there is a significant indirect impact of Tax Compliance on Regional Expenditures through Regional Fiscal Equalization Fund; and (2) Examination of indirect impact of Regional Equalization Fund on Public Welfare through Regional Government Expenditures yields an indirect impact coefficient of 0.207. Since the direct impacts (of Regional Fiscal Equalization Fund on Regional Government Expenditures and of Regional Government Expenditures on Public Welfare) are both significant, it can be concluded there is a significant indirect impact of Regional Fiscal Equalization Fund and Public Welfare through Regional Government Expenditures.

In the structure of revenue (APBN/National Budget), tax revenue has been playing a very crucial role in supporting national development funding. Within the last few years over 72% of the total national revenues is sourced from tax. The fact indicates that tax is a backbone of national revenue. Tax gives a significant contribution to the implementation of national development. For the past 10 years tax revenues have been increasing at an average annual growth of 15%. If the present trend continues, independence in development funding will be achieved.

This phenomenon is consistent with Connolly and Munro's conclusion (1999) that tax plays a crucial role in the economic development of a country. The amount of tax revenues determines a country's fiscal capacity for development. Therefore, a country's development target cannot be reached optimally without adequate support of tax revenues. In this respect, Connoly and Munro (1993) view tax in terms of its utilization aspect. As the meaning and role suggest, contribution of tax to development and be directed towards provision of basic public services such as security, health, education, and other welfare programs.

High level of public awareness can encourage more people to fulfill their obligations by registering themselves as tax subjects, paying and returning their taxes properly as manifestation of their responsibility as a citizen. Higher level of tax compliance ensures higher tax revenues. Tax compliance is a reflection of the society's willingness to fulfill their tax obligation under the prevailing law and regulations. Tax compliance here means voluntary obedience of a tax subject to consciously settle his/her tax obligation in a legally and administratively proper manner. If a person is tax compliant, his/her decision to pay tax should be voluntary without external monitoring

**Table 2. The Result of Inner Model Hypothesis in Testing Indirect Influence**

| Indirect Impact | Direct Impact Coefficients | | Indirect Impact Coefficients | Explanation |
|---|---|---|---|---|
| X1 --> Y1 --> Y2 | X1 -->Y1 = 0,247 | Y1 --> Y2 = 0,835 | 0,206 | Signifikan |
| Y1 -->Y2 --> Y3 | Y1 -->Y2 = 0,835 | Y2 -->Y3 = 0,248 | 0,207 | Signifikan |

or law enforcement by the government.

The results of the study reveal that tax compliance has a significant impact on regional fiscal equalization fund in East Java Province. The PLS analysis conducted in this study yields a path coefficient of 0.247 and $p$ value of 0.000. Thus, tax compliance has a significant positive impact on regional fiscal equalization fund. In other words, a municipality/regency with a higher level of tax compliance will accordingly receive a higher portion of fiscal equalization fund. However, the results of this study also indicate that this conclusion applies only to tax installment compliance as main component of indicator. As for compliance in Tax Return Reporting and payment of tax installment, the impact is very insignificant. This explains the fact that a number of municipalities and regencies do not receive a proportional amount of fiscal equalization fund despite their high level of tax return reporting compliance.

The policy of regional autonomy and fiscal decentralization in Indonesia is reflected in the change in the pattern of central and regional budgeting. Based on the principle of equality and justice under the law of the Unitary State of the Republic of Indonesia, in every fiscal year each region is to receive equalization fund allocated from the national budget expenditures account. In this respect, the enactment of Law on Fiscal Decentralization as of 1st January 2001 gives regional governments a more extensive mandate to run their bureaucratic function to improve public welfare. Consequently, regional governments also have more authority to optimize regional revenues based on the economic resources and potentials available. With fiscal decentralization, regional governments also have more authority to seek other sources of development funding without having to reduce expectation for funding transfer from the central government in the form of fiscal equalization fund.

Fiscal Equalization Fund is allocated for the purpose of fair distribution of development fund to all regions under the Unitary State of the Republic of Indonesia. The fund is distributed so that regions can have a fair share of the fund in accordance with the Law on Regional Fiscal Equalization. Fiscal Equalization Fund consists of four main elements, namely Tax Revenue Sharing, Natural Resources Revenue Sharing, General Allocation Fund, and Special Allocation Fund. The General Allocation Fund (GAF) should be at least 25% of the total domestic revenues and 90% of the total Land and Building Tax (for regions). Calculation of GAF is based on "money follows function" principle. Viewed from the fiscal aspect, increase in fiscal equalization fund transferred from the central to regional government indicates that the region concerned still heavily depends on central development funding and that the central government still takes great control of its development. It follows that efforts to accomplish the goal of fiscal equalization under the Unitary State of the Republic of Indonesia, particularly in the case of municipalities/regencies in East Java Province, are manifested in the augmentation of central control through the increase in fund equalization fund. On the one hand bigger equalization fund has a positive impact on augmentation of regional budget capacity. However, on the other hand, without being proportionally accompanied with significant increase in Local Revenue, as is the case with East Java, the situation would be against the idea of fiscal decentralization, which puts emphasis on the principle of independence, i.e. that regional governments must be given more authority to explore their regional financial potentials. Failure to adopt this principle would only cause a region to depend more on the central government in funding its development.

The limited capacity of a regional government to finance all its development programs may lead to a condition called fiscal gap, in which disparity exists between fiscal capacity and the total budget required. Fiscal gap will not occur if there are sufficient sources of founding. As Sidik affirms (2001), if regional governments wish to run their functions effectively, they must be supported by sufficient funding sources from Local Revenue, Tax Revenue and Non-Tax Revenue Sharing, Loan or Subsidy/Grant from the central government. In the case of municipalities/regencies in East Java, although the fund equalization fund is higher in percentage than the local revenues, the amounts of equalization funds they receive from the national tax revenue sharing are very small, approximately 11.59% of the total equalization fund received by all municipalities/regencies. Similarly, although the percentage of the General Allocation Fund (GAF), which reflects fair distribution of regional development funding, is 83.42%, far above tax revenue sharing fund, its actual amount is still very small. This condition indicates that the current budgeting is not yet in proportion with the actual needs, which is contrary to the ”money follows function” principle.

The study concludes that regional fiscal equalization fund has a significant impact on municipal/regency government expenditures in East Java. The PLS analysis yields a path coefficient value of 0.835 and p value of 0.000, indicating the presence of a significant positive impact of regional fiscal equalization fund on regional (municipal/regency) expenditures. In other words, the more equalization funds for municipalities/regencies, the bigger their expenditures.

Based on the study, the equalization funds the municipalities/regencies receive each year can induce increase in budget allocations for their routine or capital expenditures. Combined with other sources of local revenues, equalization fund functions as a fiscal stimulus in budget allocations.

The results of this study are consistent with Kook’s findings (2000) in his study on the correlation between fund transfer from the central to regional governments (intergovernmental fiscal relationship) and regional development in South Korea. According to Kook (2000), fund transfer from the central government can indeed cause regional governments to make capital expenditures that consequently affect regional economic activities. However, if fiscal decentralization principle is to be upheld, regional development funding autonomy is crucial. Regional development autonomy is reflected in the ability of a region to constantly increase Local Revenue (PAD).

The results of the study, however, conform to Keynes’ theory that increase in government expenditures on the one hand must be balanced by national revenues, which are partially sourced from taxes. According to Keynes, bigger tax revenues can stir a positive multiplier effect to support government expenditures. As the present study suggests, equalization fund is sourced from tax revenue sharing, General Allocation Fund, and Special Allocation Fund. These three components of equalization fund mainly come from national tax revenues. In other words, higher tax revenues will induce higher government expenditures.

The increase in regional budget capacity in the fiscal decentralization era depends very much on transfer of fiscal equalization fund from the central government. Through allocations of such funds, regional governments can adjust the amounts of their expenditures, which eventually determine the capacity of their budget to provide public services for their people. The study finds no significant direct correlation between equalization fund and public welfare. The application of the PLS method in data processing yields a path coefficient value of 0.044 and *p* value of 0.628, indicating the presence of a significant impact of equalization fund on public welfare. The results imply that receipts of fiscal equalization fund must be accompanied with sound planning of various accounts of regional government expenditures. It is regional government expenditures that will enable development plans to be carried out in accordance with the applicable priority scale. Thus, regional equalization fund and public welfare correlate indirectly through government expenditures. The indirect correlation coefficient is 0.207.

The capacity of a regional government budget to implement its development programs is reflected in its regional expenditures. The current decentralized fiscal policy gives a regional government a bigger autonomy to manage its budget. The higher the budget capacity, the higher expenditures, and vice versa.

Theoretically, how regional government expenditures can affect public welfare can be understood by means of a multiplier process. In such a multiplier process, changes occur in government fiscal instruments such as tax, fund transfer, and expenditures. According to Lindauer (1971), a change in any of the instruments can affect national revenue balance. The extent to which changes in the instruments also cause change in the national revenue balance is a multiplier. The impact of government expenditures on public welfare occurs through the emergence of tax, transfer, investment, and balanced budget multipliers. The greater the multipliers created by these fiscal instruments, the greater the changes caused in the national revenue balance. In the case where expenditure funding is sourced from tax (central or regional), in order to create a balanced budget, a proper proportion must be maintained between amount of expenditures and amount of tax collected from the public.

Compared to other fiscal instruments, the amount of tax multiplier has a negative impact because increase in tax is always followed by decrease in disposable income, which eventually reduces people’s consumption capacity. However, although increase in tax can cause lower disposable income, within a larger public context it by no means reduces one’s welfare (Cullis *and* Jones, 1992). This is because tax enables flow of fund from people with higher income to those with lower income. In this way, tax functions well as an instrument to achieve development distribution. In this context, has significant contribution in regulating the economy.

The strategic role of tax in an economy is confirmed in a study by Davoodi and Zoo (1998). They argue that imposition of tax gives positive impacts on economic growth in both developed and developing countries.

Tax may reduce individual consumption, but when accompanied with government expenditures, tax creates a multiplier effect that will increase national revenue and, eventually, people's per capita income (Dornbusch and Fischer, 1994). It can further be implied, therefore, that as tax revenues become higher, expenditure capacity also becomes higher and tax can be used to fund development programs to achieve better public welfare.

In Indonesia, the concept of welfare is understood within the concept of democracy it adopts. Public welfare should come before individual welfare. Social welfare has a central meaning as a goal of the nation's independence. The importance of welfare is expressed and stipulated in Article 33 of the 1945 Constitution. Thus, all activities oriented towards putting the national economy into gear, as well as the resulting dynamics, must eventually result in public welfare. According to the Constitution, the national economy shall be organized as a common endeavor based upon the principles of the family system. The article implies the need for a sense of togetherness in running the nation's economy. The Constitution also stipulates that the government bears the responsibility to use resources that affect the life of the people to their greatest benefit. This also applies to the provision of public facilities, which is also a part of the government responsibility.

The study concludes that regional government expenditures have a significant positive impact on public welfare in the municipalities/regencies of East Java Province. PLS analysis yields a path coefficient value of 0.248 and $p$ value of 0.005, indicating the presence of a significant positive impact of regional government expenditures on public welfare. The result implies that increase in regional government expenditures causes public welfare to also improve in the municipalities/regencies of East Java Province. The finding explains that in the case of the municipalities/regencies in East Java Province, General Multipliers, particularly General Expenditure Multiplier, bring a positive impact on economic growth, which results in increasing regional revenues and per capita income in East Java.

The results of the study are consistent with the actual implication of fiscal decentralization on welfare. Oates in Cullis and Jones (1992) insists that welfare gains will be felt by the public as a result of a decentralized system. Fiscal decentralization entails changes in regional budget allocations since regional government now has greater autonomy to set its own development priority scale.

In another perspective, this study is congruent with a study by Jha, et all (2001), which finds a significant positive correlation between government expenditures and public welfare, particularly in education and health sectors, in India. According to the study, government expenditures are allocated particularly to develop higher education.

In Indonesia, it is now compulsory to allocate 20% of the total regional/national budget for education. The allocation is implemented in the form of School Operational Assistance Funds (locally known as BOS). In practice, BOS funds are used mainly for school operational purposes, for example to buy stationery, as additional fee for teachers, and as compensation for abolition of school fee from elementary to high school. However still little, the program has brought its own economic advantages in the improvement of the education sector.

The positive correlation between regional expenditures and public welfare can be explained from the perspective of funding resources. Funds for municipal/regency expenditures in East Java are mostly sourced from fiscal equalization funds from the central government. The contribution of local revenues is still very insignificant in regional budgets. The percentage of East Java Province's local revenues is still very small, only 17.7%, compared to Fiscal Equalization Fund (77.2%) and Miscellaneous Revenues (5.2%). The composition indicates that regional budget has yet to represent regional independence or autonomy. In the case of municipalities and regencies in East Java, most revenues are still sourced from transfer of equalization fund, particularly general allocation funds, from the central government. The role of locally generated revenues is still so insignificant that adequate allocations have yet to be made for certain development programs.

More specifically, the positive impact of expenditures on welfare results from the fact that allocations for education and health, both of which are indicators of public welfare, are included in the routing budget structure. The bigger the routine budget, the bigger the allocations for health and education programs. Though not yet optimal, a number of health programs have been secured and implemented in the municipal/regency budgets in East Java. During the period of the study, the average routine expenditures of the municipalities/regencies constantly increased in their budget structures. Based on their budget structures, the biggest component of expenditures is routine expenditures (87%). The percentage of capital expenditures is only 13%.

These findings confirm Keynes' theory regarding government intervention in the form of government expenditures to spur economic activities. Government expenditures may consist of routine expenditures or capital expenditures (development expenditures). Government expenditures can motivate more activities in the regional development. The findings of the study also indicates that the trickle-down effect of development gains has begun to be felt by the public despite the existing income gap among them. In this case, the fund allocations received by the municipal/regency governments can help increase public welfare in East Java.

The application of the PLS method in this study indicates the presence of a significant direct positive impact of tax compliance on public welfare in East Java. The analysis yields a path coefficient value of 0.278 and *p* value of 0,000, indicating that tax compliance correlates has a significant direct positive impact on public welfare. In other words, the higher tax compliance, the better public welfare.

The positive impact above implies that tax revenues are used for regional development, which eventually results in higher level of public welfare. The correlation confirms a claim Dornbusch and Fischer's claim (1994) that tax obligation reduces individual disposable income on the one hand. However, on the other hand, the tax multiplier effect will increase government expenditures, and eventually increase national revenues. Dornbusch and Fischer argue further that increase in GNP output can be understood as increase in aggregate demand or increase in per capita income as one of the indicators of public welfare. Thus, it is evident that tax plays an important role in supporting economic development in East Java. As Connolly and Munro (1999) argue, development targets cannot be achieved optimally without strong support from tax revenues.

High level of tax compliance reflects people's awareness to fulfill their tax obligations under the prevailing Tax Law. However, considering that tax basically reduce their income and add their burden, it is not easy to encourage tax subjects to settle their obligations. A study by Atawodi and Ojeka (2012) finds that non-compliance occurs due to high tax rate and complicated tax reporting procedures. Adherents of the risk aversion theory, Allingham and Sandmo (1972) and Cowel *and* Gordon (1988) assert that tax compliance is determined by some economic factors, such as audit probability, penalty rate, tax tariff, income, and government expenditures. Another explanation comes from the tax morale theory, which claims that tax compliance is determined by social norms, including, for example, transparency, honesty, simple tax system and procedure, and tax utility.

Tax compliance, which concerns an individual's attitude towards his/her obligation as a citizen, is important for a nation's development. Mikesell and Birskyte (2007) believe that tax compliance level increases when people believe that they will receive benefits from the tax they pay and they know that there is zero tolerance against tax evasion. In addition, Wang's study in South Africa (2010) concludes that tax compliance can also be determined by the local culture, which affects public perception of honesty and behavior.

Tax compliance means the level of tax subjects' willingness to voluntarily fulfill their tax obligations, which include on-time tax return reporting, tax calculation accuracy, and proper payment of taxes due. It takes a government policy to increase people's awareness to settle their tax obligations. As Marti (2000) suggests, a policy to increase tax compliance will have a positive impact on economic growth. Through such a policy the government can adjust its budget. Penalty rate and tax tariff reduction policy can affect tax compliance and augment tax revenues. Such policy can be understood as an economic aspect approach. Tax compliance correlates with tax tariff and sanction. Getting rid of these two factors can increase tax compliance and, consequently, tax revenues.

The positive direct correlation between tax compliance and welfare can be understood when we are aware that there is some kind of social contract between the people and their government. As described in the tax morale theory, such social contract is part of social psychology. An internal motivation may appear in individuals as a positive response to good treatment (respect) from the government. Such motivation can also arise when individuals feel satisfied because the government respects their collective rights to participate. People will respond positively when the authorities treat them fairly and honestly. Similar response and higher level of tax compliance will be given when tax procedures are made simple and easy to understand. In addition, public facilities and infrastructure must also be provided by the government in response to the increasing tax revenues sourced from tax subjects. Tax subjects will be able to measure the extent to which the government provides good public services and public welfare in return of the tax they pay.

The results of the study agree with studies by Alm and Torgler (2005) and Ximing, et all (2006), which examine the impact of tax morale on tax compliance in Spain and the US. These studies conclude that the significantly higher tax morale in the US than as compared to Spain is due to cultural differences, which also affect people's norms and values with regard to tax. Another study attempted to analyze cross-section multivariate variables from a set of data from 14 European countries and the US. The study finds that individuals in the US have the highest level of tax morale among those of the other countries, followed by Austria and Switzerland. Political transparency and the government's ability to build trust are examples of good treatment that causes satisfaction among the citizens, who, as a result, feel obliged to pay their taxes. Tax payers voluntarily fulfill their tax obligations because they are satisfied certain that the taxes they pay will be used by the government for the benefits of the public.

It can also be explained here that direct correlation between tax compliance on welfare occurs because of the satisfaction that tax payers feel when they fulfill their tax obligations. Tax payers are people whose earnings are above average and therefore can fulfill their tax obligations. The increasing Gross Domestic Product of East Java Province, coupled with the increasing per capita income, encourage more people to pay tax. A person paying tax is analogous to a person fulfilling his/her duties as a citizen. Doing an obligation, just like performing a religious ritual, creates in a person a content feeling and a hope, which is good for health, which itself is an indicator of human development index. In the context of tax, a tax-compliant person is an individual who has fulfilled his/her obligation. He/she will feel satisfied which affects his/her health positively. Better health entails better life expectancy, which is immaterial in nature. Health as an indicator of human development index is measured among others from the aspect of life expectancy. Better life expectancy and health in general can be achieved when people's tax compliance is so high that they have a better and more optimistic view on regional development.

## CONCLUSION

Based on the analysis and discussion elaborated both qualitatively and quantitatively in the previous sections, it can be concluded that Tax Compliance has a significant positive impact on Municipal/Regency Fiscal Equalization Funds in East Java Province. Regional Fiscal Equalization Fund has a significant positive impact on Municipal/Regency Government Expenditures in East Java Province. Regional Fiscal Equalization Fund has no positive impact on Public Welfare. Regional Government Spending has a significant positive impact on Public Welfare in Municipalities/Regencies within East Java Province.Tax Compliance has significant positive direct impact on Public Welfare in Municipalities/Regencies within East Java Province.

Based on the findings, elaboration, and conclusions above, the following points are recommended to the fact that tax compliance has a more significant impact on regional fiscal equalization fund than on public welfare implies that the great amounts of taxes sourced from the public should be maximally returned to them in the form of service or non-service provisions. Tax payers expect that the tax they pay will be used for the maximum benefit of the public. It is therefore a good idea to establish a payback system that people can regard as a transparent mechanism of tax revenue utilization. Calculation of regional fiscal equalization fund must be reformulated by including tax compliance aspect. This recommendation is proposed because in reality, the amount of fiscal equalization fund that a regional government receives does not explicitly consider tax compliance as key to tax revenues. By including tax compliance as a determinant factor in calculating fiscal equalization fund, tax revenue sharing will give more contribution than general allocation fund. The new calculation method should give a certain emphasis on the aspect of tax compliance so that the amount yielded can give tax payers a sense of fairness in return of the tax that they pay as their obligation. In this study, tax compliance is measured only based on administrative indicators. It s recommended, therefore, that a further study be conducted by including other indicators of tax compliance that can better reflect people's willingness to pay taxes. Such indicators are also applicable to fiscus, tax subjects, or tax consultants so that a more holistic picture, which integrates other relevant aspects, can be obtained. Tax compliance and public welfare basically reflect an intrinsic aspect of a society's behavior in life. Therefore, different approaches are needed to study people's motivation and attitude towards tax. It is therefore recommended to conduct further studies using more qualitative (non mainstream) approaches and diverse analysis techniques at different locations.

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